# Exhibits 1 – 3

# TO THE DECLARATION OF STEPHEN A. CAZARES RE: DEFENDANT RAMESH BALWANI'S MOTION TO EXCLUDE TRIAL EXHIBITS 3790 AND 4871 AND RELATED TESTIMONY

# Exhibit 1

Subj: **Theranos notes**
Date: 10/27/2006 8:35:08 AM Central Standard Time
From: BTolbert@
To: challhfg@

Craig,

Attached are my notes from the conference call re: Theranos yesterday. I'm waiting on additional information from them later this morning.

Regards,

Bryan

THERANOS

## Contacts:

| | |
|---|---|
| Elizabeth Holmes | and eholmes@theranos.com |
| Gary Nordheimer | and cell |
| Chris Lucas | and cell |

## 3 Trends:

Concept of wireless home moves healthcare into the home, remote patient care (database HL7 compliant?)
Systems which allow a patient to interact in a consumer electronics environment
Personalized medicine

## Investors:

Donald Lucas – current Chairman of the Board. Is the uncle of Chris Lucas who owns Black Diamond Ventures. Black Diamond is being allowed to participate by virtue of relationship with Donald Lucas.
ATA Ventures
Black Diamond Ventures
Continental (MD Anderson)
Reid Dennis (Institutional Venture Partners)
Dixon Doll (Doll Capital Management)
Draper Fisher Jurvetson
Druker Capital
Esoom Taipei (Asian biotech manufacturing fund)
Jupiter Partners (Bryan and Edwards)
Don Lucas and affiliated funds
Victor Palmieri
Robert Shapiro (former Pharmacia Chairman)
Tako Ventures (Larry Ellison) - $10 million 1st round
Avie Tevanian (former Apple CTO) - $2 million?
Westway Capital

First raise was $16 million. This round is $30 million with a $125 million pre-money valuation. Expects this to be final raise pre-IPO. IPO is anticipated in 1Q 2008. Expect IPO to be valued around $1 billion. $30 million to be used for 1)manufacturing – moving from a manual assembly infrastructure to a fully automated system and 2) continue to fund successive iterations of the technology including decreasing amount of blood required in the pinprick and number of assays in the cartridge.

## Elizabeth Holmes:

Finished High School at 17. Spent 6-9 months a year in Bejing and completed her university degree at University in Bejing in Mandarian. She dropped out of Stanford's Chemical and Electrical Engineering Phd program on the advice of her mentor Channing Robertson.
Has 27 patents, 1 granted, 26 pending

## Financials

Current burn rate $1 million/month
$3 million in revenues should be received for 2 contracts which have already been shipped.
Has signed/in negotiations contracts through 2007 for $30-$50 million.
Expects to be cash flow positive by 4Q '07

Their contracts are for $7500/patient for 4 months.
The cartridge they charge $80/per with manufacturing costs dropping from $65 to $10 now.

Drug Monitoring trials
Phase I – 50-250 patients for 6 months to 1 year.
Phase 2 – 5000-7500 patients for 1-2 years.

Investment through Black Diamond Ventures – fund started in 1999
2.5% annual management fee on committed funds and 16% of the upside.
We have a window for up to $2 million and Gary Nordheimer is putting in $500,000.

BTW – Gary Nordheimer claims as his best friend Tom Boggs – lobby lawyer.

# Exhibit 2

**FEDERAL BUREAU OF INVESTIGATION**

Date of entry 03/27/2019

BRYAN TOLBERT was interviewed via telephone. Securities and Exchange Commission (SEC) Attorneys Rahul Kolhatkar and Mark Katz were present for the interview. Assistant United States Attorney (AUSA) John Bostic, AUSA Robert Leach and United States Postal Inspection Service Postal Inspector Christopher McCollow were present for the interview. Attorneys Joel Reese, Reese Marketos LLP and Stephanie Byrd, HALL GROUP, were present on behalf of TOLBERT. After being advised of the identities of the interviewers and the nature of the interview, TOLBERT provided the following information:

TOLBERT has not given any previous depositions or other testimony regarding THERANOS, INC. (THERANOS). TOLBERT earned his undergraduate degree from the University of Georgia and his Master of Business Administration from Brigham Young University in 1996. TOLBERT worked in Dallas, Texas for a few years and then joined the HALL GROUP in 1999. TOLBERT's title may have been Financial Analyst when he joined. At the time of the interview TOLBERT was the Vice President of Finance. As part of this role, TOLBERT did some corporate work. He also worked on private equity investments, which was what led TOLBERT to interact with THERANOS. The HALL GROUP also invested in some public companies. TOLBERT had the same primary responsibilities throughout his career at the HALL GROUP. DONALD BRAUN was the President of the HALL GROUP and CRAIG HALL was the owner. TOLBERT would speak with HALL about companies when he would hear of an investment opportunity. If the HALL GROUP did decide to make an investment, TOLBERT then had daily oversight and responsibility for the investments.

TOLBERT did not remember how he first heard of THERANOS. Ultimately, the HALL GROUP invested in 2006. HALL and TOLBERT had conversations with CHRISTOPHER LUCAS. LUCAS was putting together a fund which would invest in THERANOS. TOLBERT had some conversations with LUCAS around what his team did around the opportunity. In early 2007 or late 2006, TOLBERT went to California and met with ELIZABETH HOLMES, LUCAS, and DONALD LUCAS, SR (DON LUCAS). The group went to dinner to discuss THERANOS. After the dinner the HALL GROUP decided to move forward with their investment in THERANOS. TOLBERT did not know LUCAS prior to 2006. TOLBERT met with HOLMES again in-person possibly in 2017, but not at all between the dinner in 2006 and the next investment in 2013. Between 2006 and 2013 TOLBERT did not have any

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by CAMERON W W PURVES

direct telephone calls with HOLMES, but TOLBERT remembered being on a late 2013 telephone call. TOLBERT never met SUNNY BALWANI in-person and has never been on a call with BALWANI.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000312. This document will be maintained in the 1A section of the case file.*]

The handwriting on the email is HALL's. TOLBERT did not know how he received the invitation to meet with HOLMES. TOLBERT would have connected with LUCAS, DON LUCAS, and others for dinner that night. During the dinner they discussed THERANOS. TOLBERT came away being impressed with HOLMES and was excited about the opportunity. TOLBERT was given an early prototype of THERANOS equipment. The equipment at the time was the size of a credit card where a drop of blood would be put. TOLBERT was given this credit card sized prototype to take by HOLMES. TOLBERT believed he had the prototype in his office.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000311. This document will be maintained in the 1A section of the case file.*]

LUCAS' uncle was DON LUCAS, who was an early investor in THERANOS. DON LUCAS gave LUCAS the opportunity to create a fund to invest in THERANOS. LUCAS was rounding up investors to join his group to invest in THERANOS. TOLBERT was introduced to LUCAS and in 2006 the HALL GROUP investment was not a direct investment. The HALL GROUP invested through the LUCAS vehicle. TOLBERT was intrigued about the opportunity to invest and after the meeting with HOLMES, TOLBERT had serious interest in investing.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000308 to SEC-HBD-E-0000310. This document will be maintained in the 1A section of the case file.*]

TOLBERT did not remember if these were actual notes from the call or a summary of what he learned. TOLBERT would normally take notes during meetings. GARY NORDHEIMER was thinking about investing in THERANOS through LUCAS and has some familiarity with HALL. NORDHEIMER was the person who connected HALL with LUCAS.

TOLBERT could not remember if the paragraph referencing the first raise of $16 million was told to TOLBERT or if the information was passed by LUCAS. TOLBERT could not remember who told him about the information listed under the "Financials" heading. The information would have either

come from LUCAS or from the telephone call with HOLMES. TOLBERT could not remember exactly who was speaking during the phone call, but he understood LUCAS received his information directly from HOLMES. TOLBERT's expectation was that anything he heard from LUCAS about THERANOS was from THERANOS.

[Agent Note: *TOLBERT was directed to review the document with the title "Theranos Plan 06." This document will be maintained in the 1A section of the case file.*]

The document was received as part of the due diligence for TOLBERT prior to investing in 2006. This document was information about financials in 2006. TOLBERT would have looked at the fourth quarter 2007 column which showed positive income. This would have validated HOLMES' statement about THERANOS being cash flow positive in the fourth quarter of 2007.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000304. This document will be maintained in the 1A section of the case file.*]

MARTY COHEN was a friend of HALL. The HALL GROUP invested $2 million, but they gave the option to a few other people to participate in the $2 million investment. LUCAS then invested those $2 million directly into THERANOS. TOLBERT personally invested $25,000.

After the investment was made in 2006 until around 2013, all of the updates would have come through LUCAS. TOLBERT would call LUCAS and ask what was going on with THERANOS.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000400. This document will be maintained in the 1A section of the case file.*]

TOLBERT typically received telephone calls three or four times per year. Throughout the time between 2006 and 2013, TOLBERT had the understanding the cash flows were positive at THERANOS because he barely received any communications. TOLBERT never received financial statements. LUCAS would say things were going better than expected at THERANOS and it was all good news. LUCAS would never send document packages to review. LUCAS would tell TOLBERT things he was privy to from his talks with HOLMES. TOLBERT had the understanding the information LUCAS was providing was received directly from THERANOS.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000113 to SEC-HBD-E-0000123. This document will be maintained in the 1A section of the case file.*]

TOLBERT reviewed the slides when he received them in 2013. TOLBERT looked at the slides to monitor his previous investment in THERANOS, but also to look at it for additional investment. In the summer of 2013, THERANOS came out of stealth mode. The slides seemed to confirm everything talked about over the years since the first investment. TOLBERT reviewed document Bates numbered SEC-HBD-E-0000119. TOLBERT had the understanding THERANOS had perfected its technology and could take a drop of blood and run thousands of tests.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000398 to SEC-HBD-E-0000399. This document will be maintained in the 1A section of the case file.*]

The second paragraph about running tests was consistent with what TOLBERT had been told. TOLBERT remembered listening to the conference call.

[Agent Note: *TOLBERT was directed to review document Bates numbered HBD_001497 to HBD_001499. This document will be maintained in the 1A section of the case file.*]

TOLBERT thought the handwriting in the upper right corner of the first document was Byrd's handwriting. TOLBERT confirmed these were his notes. TOLBERT understood the second bullet point about getting rid of phlebotomy completely was from 2006 forward, traditional laboratory companies would become obsolete because THERANOS could use a small drop of blood and the test could be done in doctor's offices or similar places.

TOLBERT understood THERANOS would be manufacturing their own equipment in-house and they also did their own training. Everything was done in a THERANOS facility or the confines of THERANOS.

TOLBERT understood from the beginning the military application would be a great place for the THERANOS technology to be implemented. Significant work was being done with the military. If a soldier was wounded there were higher survival rates with quick blood tests. THERANOS was focused on retail, specifically WALGREENS at the time. THERANOS would use cash from WALGREENS to grow the other lines of business. DAVID WINKLER asked the question about the military and HOLMES answered.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000420 to SEC-HBD-E-0000422. This document will be maintained in the 1A section of the case file.*]

The information in this email is from a separate telephone call with HOLMES. The information is consistent with what TOLBERT had been told previously. The information about the military was consistent with TOLBERT's understanding.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000095. This document will be maintained in the 1A section of the case file.*]

The signature on the page was TOLBERT's and the stock and dollar amounts listed on the document were consistent with TOLBERT's understanding of the investment in THERANOS.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000401. This document will be maintained in the 1A section of the case file.*]

The information in the email was accurate regarding it being TOLBERT's decision as to the amount he wanted to invest in THERANOS. TOLBERT decided on the investment amount based on telephone calls and the validation of the investment thesis they had in 2006 that THERANOS was going to be a game changing investment. TOLBERT thought THERANOS had a positive impact on the world and they would also make a lot of money. The conversations TOLBERT had in December supported what he was told in 2006 and there was excitement around THERANOS. There was no second guessing after the investment was made and TOLBERT did not have any interactions with HALL which would have indicated he was rethinking the investment at the time. When TOLBERT made the decision to invest he thought he was acting consistently with HALL.

[Agent Note: *TOLBERT was directed to review document Bates numbered SEC-HBD-E-0000285 to SEC-HBD-E-0000286. This document will be maintained in the 1A section of the case file.*]

Lester Last Name Unknown (LNU) was COHEN's son-in-law. COHEN and Lester were both investors in 2006 and this email was HALL reaching out to them to see if they wanted to invest further. HALL was letting them know the

HALL GROUP invested $5 million and they could take whatever piece of that they wanted. TOLBERT may have invested $50,000 in the first round and $25,000 in this round, but he could not remember for sure.

TOLBERT recorded a telephone call with HOLMES. There was also another recorded telephone call in 2016, but TOLBERT could not recall who recorded the call. TOLBERT recorded the first call because there was a lot of information discussed and it was fast paced. He did this recording to fill in his notes later if he missed something. TOLBERT was in Dallas, Texas on the call. There was a potential HALL would not be able to join the call, therefore TOLBERT wanted to make sure he captured the highlights. TOLBERT did not tell anybody on the call he was making the recording. TOLBERT had no intention of using the recording to extort HOLMES. TOLBERT ended up capturing enough in his notes that he did not go back and review the recording. TOLBERT did not think about the recording again until he started hearing bad news about THERANOS. TOLBERT preserved the recording because he did not want to destroy it or do anything wrong. The call was an investor call with serveral people on the call who invested. Several people asked questions and TOLBERT knew several other people on the call. TOLBERT was not aware of California law regarding recordings without consent. Nobody has reached out to TOLBERT about the recording. TOLBERT did not know if it was common in the industry to make recordings. TOLBERT has not made recordings for other investments. TOLBERT's intent was not to keep the recording, it was to round out his notes and TOLBERT just never got around to rounding out his notes.

# Exhibit 3

THERANOS, INC.
Management Biographies

**Officers: Elizabeth Holmes, Diane Parks, Kevin Carroll, Howard Bailey and John Howard**

**Elizabeth Holmes, President and CEO**

Elizabeth A. Holmes is President and Chief Executive Officer of Theranos, Inc. Holmes' unique background in microfluidics and nanotechnology led her to found Theranos around her patent, *Medical Device for Analyte Monitoring and Drug Release*, and the vision to create a new sector of personalized health care enabling real-time diagnosis and treatment of targeted ailments in a non-invasive fashion. She took the company from concept to reality, building a world-class management team and leading the product and commercial development infrastructures from inception through to volume manufacturing for pharmaceutical customers. Holmes left Stanford University to found Theranos after contributing to the development of several novel biosensor systems through her work at Genome Institute Singapore and in collaboration with Genencor International.

**Diane Parks, Chief Commercial Officer**

Diane Parks is an accomplished Senior Executive with 25+ years experience in driving profitable growth for large pharmaceutical companies and biotech companies. Most recently she served as Senior Vice President of Biotherapeutics and Managed Care at Genentech. Prior to Genentech she was VP of Marketing at Aventis. Diane has a proven track record of leading successful business initiatives in complex, competitive, uncharted and turn-around environments. Reputation as a strong leader, strategic thinker, innovator, and communicator. Integrates cross-functional expertise in:

- Marketing- launched 5 major new drugs and oversaw launch of 10 newline extensions
- Sales- Built 3 new sales organizations and restructured a team facing declining sales
- P&L, Forecasting, Budgeting
- Human Resources-selection, development, team building and training
- Pipeline Development
- Specialty Pharmacy and Reimbursement support
- Strategic Planning and Leadership

**Kevin Carroll, Senior Vice President, Operations**

Kevin Carroll joined Theranos in September of 2006. Mr. Carroll brings over 25 years of diverse experience in leading strategic business transformations. Prior to joining Theranos Mr. Carroll served as the Vice President & Chief Procurement Officer at EMC Corporation in Hopkinton, MA. Mr. Carroll led the transformation of EMC's global supply chain and procurement processes. He delivered $400 million annually in realized savings and improved operating leverage by expanding global sourcing relationships, re-mapping product value chains and driving performance based upon total cost impact. Mr. Carroll also served as Vice President of Sales and Services Administration and Vice President Supply Management at Sun Microsystems, Inc. where he was awarded Sun's Chairman's Leadership Award in recognition of his industry leading supply chain management performance results. Mr. Carroll possesses a broad base of business operations knowledge acquired over many years of diverse experience at both small and large enterprises, and across both component and systems products.

Education:
Adelphi University, Garden City, NY, Graduate Studies in the MBA program, 1981-1983
State University of New York, Plattsburgh, NY, Bachelors in Environmental Science 1976

9/7/2006

**Howard Bailey, Chief Financial Officer**

Howard Bailey has been CFO of Theranos since March of 2006. Prior to that he was the CFO of Ocean Networks a public company which provides networking equipment to telecom companies. He has taken two companies public as the CFO and been the CFO of four different public companies. He began his career in high tech finance at Intel where his last position was controller for Intel's worldwide manufacturing group.

**John K. Howard, Senior Vice President, Products**

John Howard has a proven track record managing technology into products. As President of the Panasonic Semiconductor Development Company he was responsible for US based semiconductor R&D, business development, and strategic partnerships. Previously he established and grew to $1B per year a sector of IBM's Microelectronics Division. While with IBM's Storage Products Division he turned around the Optical Storage Product line and grew the business to over $100M annually. His experience also includes management of advanced CAD development, and System On Chip VLSI development.

**Ron Oral, VP Operations**

Ron Oral is responsible for leading the quality, manufacturing, and supply chain efforts at Theranos, Inc. Prior to joining Theranos, Inc., he spent six years as Director of Consumable Manufacturing for Arcturus Bioscience Inc., a leader in the field of Laser Capture Micro-dissection and reagent systems for gene expression analysis. At Arcturus, Ron was responsible for the start up and growth of the reagent manufacturing group. He also spent nine years at Lifescan, Inc. developing and launching new products. At Lifescan, he was responsible for managing the One Touch® and Quickslver® reagent test strips, bringing both product lines from their start up phase through full scale production. Ron has over 30 years' experience in manufacturing and quality assurance, working in FDA regulated industries with tenure at Hitachi Chemical Diagnostic Corporation and Lifescan, a Johnson and Johnson Company. He earned his Bachelor of Science from the University of California at Davis, and an MBA from University of Phoenix.

**Dr. Ian Gibbons, Senior Director, Assay Development**

Dr. Gibbons has twenty-eight years of product development experience in diagnostics and therapeutics. He has been the inventor and lead development scientist of many novel products including:

- Non-separation immunoassays for drugs, serum proteins, microbial antigens
  - Syva Company
- Point-of-care diagnostics for TDM, blood screening, acute-care management
  - Biotrack, Ciba-Corning Diagnostics, Boehringer-Mannheim, FMI
- Immuno-magnetic cell selection for High-Dose Chemotherapy
  - AmCell

Publications:
- Peer-reviewed publications: 40
- Issued US patents: 37
  - Assay chemistry
  - Microfluidics

Education
MA, Ph.D. (Biochemistry, Chemistry): Cambridge University, England
Post-doctoral studies U.C. California, Berkeley

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**Edmund Ku, Senior Director, Reader Division**

During his 22 year career, Edmond has been involved in all levels of development and engineering management. His expertise encompasses client/server software development, system level architecture, hardware design, high-density packaging, system level power management, and setting up of overseas manufacturing.

Prior to joining Theranos, Edmond served as the Vice President of Advanced Development at Amphus where he was responsible for the development of award winning x86-based blade servers and ManageSite™, a web-based enterprise-level platform management application. Edmond also served as the Vice President of Engineering at Vadem, where he led the teams that developed numerous portable computing solutions for tier-1 companies, designed numerous PC chipsets, and ported an operating system for Microsoft. While at Vadem, he was best known as the chief designer and visionary behind the award-winning Clio product, the forefather of Microsoft's tablet PC, and the only PDA that is approved by NASA for space flight. Edmond holds 2 patents for portable systems.

**Timothy Kemp, Senior Director, Informatics**

Mr. Kemp brings over thirty years of experience at ISM spearheading a wide variety of technical innovation projects. He began his career in industrial process control, operating systems, network databases, programming language compilers, computer aided design, and hard-drive storage architectures. Recently, he led projects integrating microfluidics, voice recognition, and diabetes management systems. He holds 5 patents in electronic hardware and software design.

9/7/2006

THERANOS, INC.

BOARD OF DIRECTORS

**Donald L. Lucas, Chairman of the board**

Mr. Lucas is well known as a founding partner of such companies as National Semiconductor Corporation Macromedia, Inc., PDF Solutions, Inc., and Oracle Corporation.

Mr. Lucas is currently on the board of Cadence Design Systems, Inc., Chairman of the Executive Committee of the Board of Directors of Oracle Corporation (Don served as Chairman from October 1990 to May 1999), Chairman of the Board of 51Job, and Chairman of the Board of Dexcom, Inc. In addition, Mr. Lucas serves as a Director for several other public and private companies.

Mr. Lucas was a General and Limited Partner of Draper, Gaither & Anderson (DG&A), the first venture capital firm, before investing independently.

Don Lucas received his Bachelor of Arts degree from Stanford University and his MBA from Stanford's Graduate School of Business.

**Elizabeth Holmes**

Elizabeth A. Holmes is President and Chief Executive Officer of Theranos, Inc. Holmes' unique background in microfluidics and nanotechnology led her to found Theranos around her patent, *Medical Device for Analyte Monitoring and Drug Release*, and the vision to create a new sector of personalized health care enabling individuals to take control of their health through real-time diagnosis, monitoring, and treatment of targeted ailments in a non-invasive fashion.

She took the company from concept to reality, building a world-class management team and leading the product and commercial development infrastructures from inception through to manufacturing for pharmaceutical partners today.

Holmes left Stanford University to found Theranos after contributing to the development of several novel biosensor systems through her work at Genome Institute Singapore and in collaboration with Genomics International.

**Peter Thomas**

Peter Thomas is a co-founder and Managing Director of ATA Ventures. Pete comes to ATA Ventures having enjoyed a highly successful career in venture capital activities across the past 20 years. In 1985, he joined Institutional Venture Partners (IVP) as a General Partner in their IVP III fund and continued as a General Partner of IVP through the IVP III-VIII funds.

Companies that Pete has successfully led investments in include Nolitor, Applied Medical, Atmel (ATML), Altera (ALTR), @Road (ARDI), Transmeta (TMTA), Cirrus Logic (CRUS), Form Factor (FORM), and many others. Pete is on the board of three public companies @Road (ARDI), Transmeta (TMTA) and Atmel (ATML) as well as several other private companies.

Prior to venture capital activities, Pete was at Intel Corporation for 7 years in various engineering and marketing management roles.

Pete graduated magna cum laude in 1968 with a BSEE degree from Utah State University and received his MS in Computer Science from the University of Santa Clara in 1975.

**Channing Robertson**

Channing Robertson holds the Ruth G. and William K. Bowes Professor in the School of Engineering, Stanford University, and serves as the Senior Associate Dean of Engineering at Stanford.

Dr. Robertson has spent much of his career designing and developing advanced drug delivery systems for therapeutic applications. He was recently featured in Upside Magazine's special issue on "100 People Who Have Changed the World."

Channing served as an expert witness in several trials including the Copper 7 intrauterine contraceptive cases (in the U.S. and Australia), the Stringfellow Superfund case and most recently the Minnesota tobacco trial where he provided testimony on tobacco material processing, cigarette design and manufacturing and nicotine delivery systems.

He was a Founding Fellow, American Institute of Medical and Biological Engineering, a Member of the Science, Law and Technology Law Program Committee of the National Academy of Sciences, and the Panel on Court Appointed Scientific Experts (CASE) of the American Association for the Advancement of Science.

He received his BS (with Honors) in Chemical Engineering from the University of California at Berkeley. He received his MS & PhD, Chemical Engineering emphasis on fluid mechanics and transport phenomena, Stanford University.

**Avadis Tevanian**

Mr. Tevanian is the former CTO of Apple Computer and will be joining Theranos's Board of Directors. This will be announced shortly. Please see attached Bio.



# THERANOS, INC.
## MENLO PARK, CALIFORNIA

**Introduction:**

Theranos is first mover in a multibillion dollar industry: wirelessly controlled individualized monitoring systems for realtime analysis of patient health in an ambulatory context.

In its first market application, Theranos systems are used to improve the risk profiles of key drugs. The systems are coupled with drugs post-approval to quickly validate efficacy in new applications and new patient populations and to remove warning labels through individualized monitoring of safety concerns.

Theranos 1.0 is the first system able to quantitatively monitor drugs and proteins from a painless sampling mechanism and correlate these readings with existing information in a patient record or other database in realtime. This enables a complete profile of efficacy of a drug in an individual: integrating factors such as metabolism and presence of multiple drugs in the blood (which change on a frequent basis) with stagnant information such as a genetic test or predisposition to cardiovascular risk.

Theranos 1.0 is the first handheld chemiluminescence enzyme immunoassay system capable of a high correlation with clinical laboratory test (inter/intra assay variability, sensitivity, and dynamic range). It requires 5-10 µL of blood per panel of tests, enables monitoring at multiple time points in an ambulatory setting and performs assays on drug molecules and biomarkers simultaneously. Its ease of use and the quality of data add significant value to clinical trial processes and decrease the time and cost of running equivalent studies.

Theranos customizes systems to meet the clinical trial needs of its clients – in Phase I and II, where the generation of simultaneous, realtime Pharmacokinetic (drug levels) and Pharmacodynamic (biomarker levels) profiles is critical to early decision-making, but especially in Phase IIb and Phase IV pharmaceutical studies where the value of its proprietary systems is maximized through generation of realtime safety and efficacy profiles in large patient populations in an ambulatory context.

The data generated is integrated in realtime with each patient record through Theranos's informatics system, ABCS, to develop individualized efficacy and safety profiles.

Theranos systems not only enable pharmaceutical companies to monitor compliance with a drug, but most importantly enable companies to quantitatively correlate the effect of compliance on efficacy and safety through ambulatory monitoring in the general population during late stage and post-marketing clinical trials.

In outsourcing tests from the clinical laboratory the Theranos systems not only streamline the patient testing and data analysis processes but also provide a mechanism for monitoring drug safety in the general population and for improving compliance.

As such, the Theranos platform dramatically increases clinical development productivity and reduces the number of patients dropping out of trials at the same time as providing a mechanism for increasing prescription sales of the drug.

**The Theranos 1.0 System:**

The Theranos system is a handheld device that utilizes a multi-step immunoassay intended for *in vitro* diagnostic use to quantitatively monitor drugs, drug metabolites and biomarkers in whole blood samples.

The system is comprised of:
1) Disposable plastic cartridges containing assay reagents that utilize a single whole blood sample to run multiple assays simultaneously. The cartridges are used to measure the concentration of drugs, drug metabolites and targeted markers for efficacy and safety
2) A non-disposable Reader that extracts *in vitro* assay data from Cartridges and transmits data via a wireless link to a remote database hosted by Theranos
3) Theranos' Ambulatory Bioinformatics Communication System ("ABCS") which analyzes data from the reader which has been sent to the Theranos server, stored, and profiled with other related information such as history, results of previous pre-clinical tests, pertinent observations, and previous results from the Theranos 1.0 System.

Theranos customizes Company-specific databases and proprietary analytic communications software for retrieval, transmission, and analysis of data from the Theranos 1.0 Cartridges and the patients' records; the 1.0 ABCS is regularly upgraded at scheduled intervals. ABCS is HL-7 and HIPAA compliant and enables realtime integration of the data monitored in an ambulatory context (or in the point-of-care) with the patient record and applies algorithms to integrate both sets of data into patient-specific efficacy and safety profiles.

Technical Features:

| Criteria | Theranos 1.0 |
|---|---|
| Intended use | Simultaneous quantitative measurement in the point-of-care of Drugs and Treatment-related biomarkers indicative of efficacy and safety; data wirelessly integrated into patient record |
| Calibrator | On board with each measurement |
| Controls | On-board positive control |
| Operating Principle | Chemiluminescent/ Immunoassay |
| Dynamic Range | low ng/mL – high ng/mL |
| Sample size | 5-20uL |
| Precision | Average total 5-7% CV or better |

1. **System Performance:**
   a) Sensitivity: the sensitivity of the chemiluminescent system exceeds that of any fluorescent system.
   b) High/Low Assay Determination: Theranos systems quantitatively run low and high sensitivity assays in the same device with chemiluminescence; this is not possible with any existing point-of-care products.
   c) The accuracy and precision of the system as reflected in the % CV and SD are enhanced by the built-in calibration of a positive control. This is absent in other products, which must be calibrated "periodically" based on a reagent lot or reagent kit.
2. **Post ICU or ED Ambulatory Follow-up:** Theranos portable system may be used at home in a post-therapy follow-up to measure the long-term efficacy of treatment and the risk of recurrence of the disease based on the blood levels of targeted analytes, enhancing the value of a therapeutic solution.

**Increasing Pre-Clinical Productivity:**





The Theranos 1.0 System has many advantages when compared with current processes used in pre-clinical animal studies. These include:

- Pre-clinical Advantages
  - Mouse studies with ~ 5uL blood sample size
  - Multiple time points from one mouse
  - Less inter-mouse data variability
  - Quality of data improved
  - Immediate availability of data
  - Reduces the number of small animals sacrificed during studies
  - Method may be transferred to clinical studies
- Eliminates Problems of
  - Blood collection, transportation, storage
  - Thawing, analysis and reporting
  - Loss of information from short half-life drugs/biomarkers

It is estimated that in a typical pre-clinical study using mice or other small animals, the use of the Theranos 1.0 System could reduce costs to the Sponsor significantly.

In addition to substantial cost reductions, consider a typical carcinogenicity study where the aim is to detect cancerous changes as a result of exposure to a chemical. One indicator of the outcome to exposure is assessed by blood sampling before pathological appearance and tissue and organ examination. The number of young rats or mice used exceeds 400. Such a study is estimated to cost as much as $2M per chemical and take up to 5 years to complete. If one assumes that for the current practice each time point requires 5 mice from which data will be pooled to reduce inter-mouse variability, the number of mice and subsequent analyses could be greatly reduced with the Theranos System. With the proposed Theranos System, each mouse would be its own initial control. Triplicate samples, each of 5-10 µL, could be used from a single mouse per timepoint. One mouse would be used for each five mice used under current practice protocol and the correspondingly less analyses would be performed. The drug product and the appropriate biomarkers could be quantitatively assayed for exposure and outcome. The overall efficiency of the study and savings in cost would be enormous.

**Increasing Clinical Development Productivity:**
The Theranos 1.0 System has many advantages when compared with current processes used in clinical trials. These include:

1. Enabling more tests, at less expense. The overall time to obtain protocol-driven data will be more efficiently used and greatly reduced
2. Increasing patient compliance by outsourcing tests from the clinic. The likelihood of a patient dropping out of a study before a final timepoint has been taken is reduced.
3. The ability to concurrently monitor specific and indicative markers using the Theranos 1.0 System will likewise simultaneous new information from ongoing evaluations
4. Increasing productivity by capturing and reporting data in real-time.
5. Enabling quick and accurate decisions
6. Eliminating several steps of data transfer that often lead to inadvertent errors
7. Streamlining data processing and analysis.
8. Enhancing safety monitoring, patient- physician/investigator communication electronically
9. Reducing the need for forms; HIPAA and HL7 compliant

The Theranos 1.0 System reduces steps' costs in the clinic for physician/investigator. These are directly realized by the sponsors.

1. **Time and Costs:** The overall time to obtain protocol-driven data will be more efficiently used and greatly reduced. The resulting reduction in costs follows.
2. **Biomarkers:** The ability to concurrently monitor specific and indicative markers using the Theranos 1.0 System will finesse simultaneous new information from ongoing evaluations.
3. **Value:** There is an initial investment on the Readers and the recurrent low costs of disposable product-specific disposable cartridges. Following this, the ease of use, the high strategic importance, the overall added-value and the near-term ROI cannot be overstated.

It is estimated that with an ambulatory clinical trial, the use of the Theranos 1.0 System would reduce costs to the Sponsor significantly.

Consider a 30-week study with 2,000 enrolees and with 75 data-points for blood draw.

- Exemplary Costs Criteria:
  1. Commercial Blood Draw: 2,000 x 75 x $61 = $9.15M ($4.2M at ½ Price for volume discount)
  2. Compliance Failure: Key compliance reasons for failure include:
     - Skipping doses
     - Inconvenience of Visits
     - Resulting Patient Drop out
  3. Loss of Sale Due to Repeat Study/if study fails:
     - Assume Peak Market of Product = $500M/yearLoss of time for Repeating a 30-week study (Loss of 0.6 yr sales)
     - Cost of loss to sales = $500 x 0.6 = $300M
     - A 1 in 10 probability of loss = 0.1 x $300M = $30M cost
- Other Factors
  - Patient Monitoring
  - Site Monitoring
  - Investigators' Costs
  - Clinical Trial Monitor travel
  - Data Management
  - Project Management

The resulting savings to the overall clinical process and the resulting per-patient savings, exemplified in the ability to obtain real-time data from remotely located patients are of significant value. Assuming the 2003 Tuft's estimate that the average per-patient per-cycle cost for a clinical trial is $23,672, the total costs of such trials are likely to be in the tens of millions. Savings on this scale significantly exceed the cost of the Theranos system.

The cost of finding patients, the interaction between the physician and the patient, the cost of trial monitoring and the increasing complexity of the trial designs to capture ever more data points have continued to drive clinical trial costs up. Dramatic improvement in clinical trial productivity is one of the key goals of most pharmaceutical companies – and technology offered by Theranos for the first time allows companies to totally re-think how trials are structured and implemented.

**Individualized Medicine**

While the current approach to "personalizing medicine" centers on monitoring genetic variation or basal-level activity of targeted markers, Theranos provides a system which does not differentiate on a population basis. Instead, Theranos systems treat each individual separately, enabling therapeutic customization to occur after each patient has been dosed with a drug by measuring stimulated levels of targeted analytes.





The Theranos device correlates phenotypic expression of pharmacogenomic profiles to study drug drug (in the context of both combination therapy as well as new drug development), metabolite, and biomarker interactions and monitor risk of adverse drug reactions on an individual basis. Unlike genomic profiling which necessitates reduction of the total available patient base to a target population pre-screened for a specific drug, the Theranos systems introduce customized informatics – integration of real-time pharmacokinetic and pharmacodynamic profiles to enable dose response as a more effective screening mechanism after prescribing a drug.

The combination of the *1.0 System* with therapeutic pharmaceutical products will pave the path for safer therapies which can be prescribed to the total available patient base. The enablement of "narrow range", targeted therapeutic products to be prescribed generically marks the beginning of a new era of "**smart blockbuster drugs**" and has the potential to re-define traditional health responses to marketed therapeutic products.

Theranos

# Existing Investors

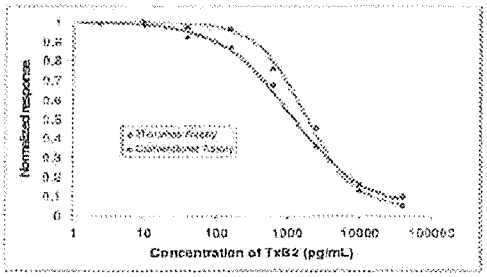
**Lead investor profiles:**

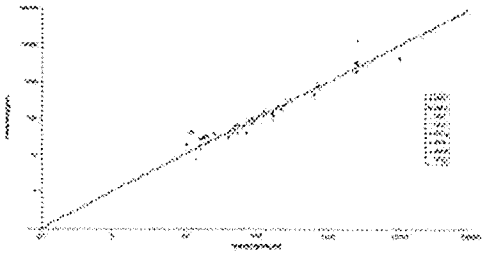
- Series A
  - Chang, Esoom Taipei: Multi-billion dollar distribution group; leading distributors of high technology devices in Asia with headquarters in China and in Taiwan.
  - Continental Properties Company: Fund lead by John Schweitizer and Stephen Feinberg, director of MD Anderson, leading center in innovative cancer treatment, cutting-edge research and clinical trials.
  - Draper Fisher Jurvetson: Draper Fisher Jurvetson is a global network of affiliated venture funds with over $3 billion in capital commitments and offices in the major technology centers around the world.
  - Jupiter Partners: Fund lead by John Bryan, limited partner in numerous venture capital and private equity funds and leading investor in companies ranging from Amgen to Hewlett Packard.
  - Palmieri Trust: Fund lead by Victor Palmieri, business takeover financier; director of numerous high growth companies including Phillips Petroleum, the Pennsylvania Company, Arvida Corporation, Outlet Communications, the William Carter Company, Broadcasting Partners, and Mullin Consulting and a Trustee of The Rockefeller Foundation.
- Series B
  - Donald L Lucas fund: Premier Silicon Valley venture capital veteran (note biography in board profile document)
  - ATA Ventures (Early Stage Venture Capital)
  - Larry Ellison, Tako Ventures
  - Dixson Doll (Doll Capital Management)
  - Ray Bingham, BJ Cassin, other private equity investors

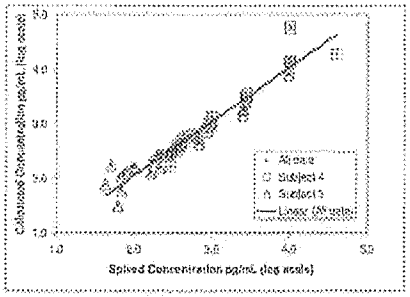


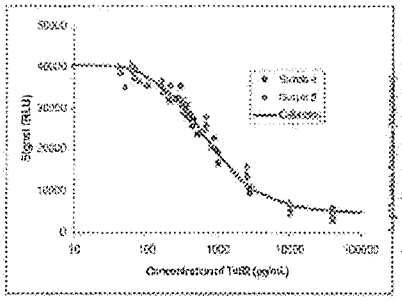
Theranos

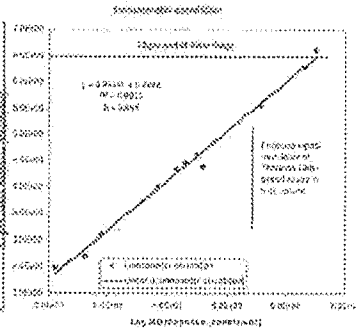
# Technology: Theranos System versus Today's Lab





- On-chip Chemiluminescence enables greater sensitivity than the clinical lab

THERANOS, INC.

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NOTE:
The following materials do not pertain to any future applications of the Theranos system. The value proposition for using the systems in the "personalized medicine" context on the commercial market at a physician's office or in the home is not addressed.
All materials detail the sale of information generated during a Phase IV clinical trial to pharmaceutical companies for the purpose of improving the drug label.

Assumptions for Financials:

- No new partnerships signed on between today and 12/08 other than those already in process
- No decrease in deal lead times, time for validation and time to product development and shipment even though some of the same products will be shipped to multiple customers
- No account for 510K / sale into multiple markets of certain products
- Timelines for deals in process are pushed significantly out from internal expectations
- Out of the deals in process now, about half go through into a validation phase: less than half of these proceed into phase IV within this timeframe
- Payment Collection Days are pushed out from agreements
- No up-front payments



| | | |
|---|---|---|
| Base Assumptions | | readers = number of patients plus 10% |
| | | Informatics service is 1 per reader per month |
| $ | 3,000 | reader ASP |
| $ | 75 | cartridge ASP |
| $ | 2,500 | informatics monthly service fee |

**Clinical trial (four year trials)**

| | |
|---|---|
| 37,500 | per participant charge every four months |
| 2,500 | average number of participants |
| 356,250,000 | potential annual revenue per trial |

There are 600 to 800 trials going on at any given time
This gives us a TAM of approx $39 bill Not all trials are active and not all trials are suitable for Theranos

**Pre clinical trial**

| | | | |
|---|---|---|---|
| | 25 | readers per research group (3 researchers) | |
| | 1,650 | cartridges used per month per researcher | |
| $ | 75,000 | reader revenue (one time every three years) | |
| $ | 4,233,600 | annual cartridge revenue | 228,446.00 |
| $ | 750,000 | annual informatics fee | |
| $ | 5,058,600 | year one revenue per group | |
| $ | 4,983,600 | year two and three revenue per group | |
| | 131 | groups at one Pharma that we in discussions with | |
| $ | 562,818,600 | potential annual revenue per Pharma | |
| | 15 | pharma companies that size | |
| TAM | $ 8,332,362,000 | | |
| Note this estimate excludes: | | another 15 that are smaller | |
| | | university and other research labs | |

## Theranos Plan 06

| Base Forecast | Q3 06 | Q4 06 | Q1 07 | Q2 07 | Q3 07 | Q4 07 | Q1 08 | Q2 08 | Q3 08 | Q4 08 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | | | | | |
| Revenue | 0 | 0 | 4,639 | 4,655 | 12,269 | 20,884 | 36,049 | 42,462 | 53,805 | 67,271 |
| Variable Cost | 0 | 0 | 2,653 | 2,393 | 6,821 | 6,401 | 11,046 | 13,235 | 17,712 | 21,791 |
| Dept Cost | 975 | 1,131 | 1,000 | 1,050 | 1,100 | 1,150 | 1,200 | 1,588 | 2,125 | 2,615 |
| Total Cost | 975 | 1,131 | 3,653 | 3,443 | 7,921 | 7,551 | 12,246 | 14,823 | 19,838 | 24,406 |
| Variable Margin | 0 | 0 | 1,986 | 2,262 | 5,448 | 14,483 | 25,003 | 29,227 | 36,193 | 45,480 |
| **Gross Margin** | (975) | (1,131) | 986 | 1,212 | 4,348 | 13,333 | 23,803 | 27,639 | 34,067 | 42,865 |
| | | | 21% | 26% | 35% | 64% | 66% | 65% | 63% | 64% |
| R&D | 2,287 | 2,359 | 2,400 | 2,500 | 2,700 | 2,924 | 5,047 | 5,945 | 7,547 | 9,418 |
| S&M | 459 | 777 | 928 | 884 | 2,208 | 3,550 | 6,126 | 7,219 | 9,164 | 11,436 |
| G&A | 622 | 718 | 725 | 750 | 800 | 1,044 | 1,802 | 2,123 | 2,695 | 3,364 |
| Operating Expense | 3,368 | 3,854 | 4,053 | 4,134 | 5,708 | 7,518 | 12,978 | 15,286 | 19,406 | 24,218 |
| | | | 87% | 89% | 47% | 36% | 36% | 36% | 36% | 36% |
| **Operating Income** | (4,343) | (4,985) | (3,067) | (2,922) | (1,360) | 5,815 | 10,825 | 12,352 | 14,661 | 18,647 |
| Opinc as a Pct of Rev | | | -66% | -63% | -11% | 28% | 30% | 29% | 27% | 28% |
| Nonoperating Income | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nonoperating Expense | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Inc Tax | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 | 5,132 | 6,526 |
| **Net Income** | (4,343) | (4,985) | (3,067) | (2,922) | (1,360) | 5,815 | 10,825 | 11,352 | 9,530 | 12,121 |

7/11/2006
excludes 123R stock compensation charge

## Theranos Plan 06

| **Balance Sheet** | Q3 06 | Q4 06 | Q1 07 | Q2 07 | Q3 07 | Q4 07 | Q1 08 | Q2 08 | Q3 08 | Q4 08 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Cash** | 31,030 | 26,672 | 20,165 | 16,529 | 4,832 | 2,027 | 2,040 | 3,179 | 2,423 | 2,298 |
| Accounts Receivable | 0 | 0 | 3,943 | 3,957 | 10,429 | 17,751 | 30,642 | 36,093 | 45,819 | 57,160 |
| Inventory | 100 | 300 | 3,449 | 3,110 | 8,867 | 8,321 | 14,360 | 17,206 | 23,026 | 28,328 |
| Other Current Assets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Current Assets | 31,130 | 26,972 | 27,557 | 23,596 | 24,128 | 28,099 | 47,042 | 56,477 | 71,268 | 87,808 |
| PP&E | 1,934 | 2,884 | 3,134 | 3,384 | 4,134 | 4,884 | 5,134 | 5,384 | 6,134 | 6,884 |
| Accum Depr | (217) | (378) | (618) | (880) | (1,162) | (1,506) | (1,913) | (2,341) | (2,789) | (3,301) |
| Net PP&E | 1,717 | 2,505 | 2,515 | 2,504 | 2,972 | 3,378 | 3,221 | 3,043 | 3,344 | 3,583 |
| Oth Long Term Assets | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 |
| **Total Assets** | 32,890 | 31,521 | 30,115 | 26,143 | 27,143 | 31,520 | 50,305 | 59,563 | 74,655 | 91,434 |
| Accounts Payable | 1,303 | 1,496 | 2,312 | 2,273 | 4,069 | 4,521 | 7,567 | 9,033 | 11,773 | 14,587 |
| Accrued Liabilities | 391 | 449 | 694 | 682 | 1,227 | 1,356 | 2,270 | 2,710 | 3,532 | 4,376 |
| **Short Term Debt** | 0 | 1,400 | 2,000 | 2,000 | 2,000 | 0 | 4,000 | 0 | 2,000 | 3,000 |
| Oth Curr Liabilities | 34 | 2,000 | 2,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Total Current Liabilities | 1,728 | 5,344 | 7,005 | 5,955 | 8,315 | 6,877 | 14,837 | 12,743 | 18,305 | 22,963 |
| Long Term Debt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Equity | 46,340 | 46,340 | 46,340 | 46,340 | 46,340 | 46,340 | 46,340 | 46,340 | 46,340 | 46,340 |
| Accum Deficit | (15,178) | (20,163) | (23,330) | (28,152) | (27,512) | (21,697) | (10,872) | 480 | 10,010 | 22,130 |
| **Net Worth** | 31,162 | 26,177 | 23,110 | 20,188 | 18,828 | 24,643 | 35,468 | 46,820 | 56,350 | 68,470 |
| **Total Liabilities and Ne** | 32,890 | 31,521 | 30,115 | 26,143 | 27,143 | 31,520 | 50,305 | 59,563 | 74,655 | 91,434 |

## Theranos Plan 06

| Cash Flow | Q3 06 | Q4 06 | Q1 07 | Q2 07 | Q3 07 | Q4 07 | Q1 08 | Q2 08 | Q3 08 | Q4 08 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Beginning Cash** | **5,788** | **31,030** | **28,672** | **20,165** | **16,529** | **4,832** | **2,027** | **2,040** | **3,179** | **2,423** |
| Net Inc(Loss) | (4,343) | (4,985) | (3,067) | (2,922) | (1,360) | 5,815 | 10,825 | 11,352 | 9,530 | 12,121 |
| Depr/Amort | 103 | 161 | 240 | 261 | 282 | 344 | 407 | 428 | 449 | 511 |
| Decr(Incr) AR | 0 | 0 | (3,943) | (14) | (6,472) | (7,323) | (12,880) | (5,451) | (9,727) | (11,361) |
| Decr(Incr) Inv | (100) | (200) | (3,149) | 338 | (5,757) | 546 | (6,039) | (2,846) | (5,820) | (5,303) |
| Decr(Incr) Oth Curr Ass | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Decr(Incr)Oth Long Terr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Capital Equip Purch | (700) | (950) | (250) | (250) | (750) | (750) | (250) | (250) | (750) | (750) |
| Incr(Decr)AP | 217 | 193 | 816 | (39) | 1,816 | 432 | 3,046 | 1,486 | 2,740 | 2,814 |
| Incr(Decr)AccrLiab | 65 | 58 | 245 | (12) | 545 | 130 | 914 | 446 | 822 | 844 |
| Incr(Decr)Oth Curr Liab | 0 | 1,966 | 0 | (1,000) | 0 | 0 | 0 | 0 | 0 | 0 |
| Incr(Decr)Debt | | | | | | | | | | |
| Curr Debt | 0 | 1,400 | 600 | 0 | 0 | (2,000) | 4,000 | (4,000) | 2,000 | 1,000 |
| Long Term I | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Incr(Decr) Equity | 30,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cash In(Out) | 25,242 | (2,358) | (8,507) | (3,636) | (11,697) | (2,806) | 13 | 1,139 | (756) | (124) |
| Cash in(Out) net of finar | (4,756) | (3,758) | (8,107) | (3,636) | (11,697) | (606) | (3,987) | 5,139 | (2,756) | (1,124) |
| **Ending Cash** | **31,030** | **28,672** | **20,165** | **16,529** | **4,832** | **2,027** | **2,040** | **3,179** | **2,423** | **2,299** |